

## BEST AVAILABLE COPY

### ABSTRACT OF THE DISCLOSURE

An apparatus for reverse iontophoresis has a base, an electrode provided on the base, an electrolytic gel provided on the electrode adapted for contacting a first part of a specimen, and for extracting a molecule from a first part of the specimen, a sensor chip placed underneath the electrolytic gel and having a pigment membrane containing a pigment that changes color by reaction with the molecule, a light source irradiating light on the pigment membrane, and a light sensor receiving a reflection of the light from the pigment membrane.